Crawford County

July 2015

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 19 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Crawford County economy.[1] These 19 sectors have a total direct output of approximately $557 million and support 1,426.5 jobs in Crawford County. Running the model for all 19 sectors simultaneously produces the following results:

Agriculture Contribution in Crawford County

Impact Type[2]	Employment	% of Total Employment	Total Value Added[3]	% of Gross Regional Product[4]	Output[5]	% of Gross Regional Product
Direct Effect	1,426.5	7%	$113,185,042	9%	$557,165,465	43%
Indirect Effect	550.6	3%	$45,362,088	4%	$84,027,703	7%
Induced Effect	310.2	1%	$19,412,744	2%	$34,427,860	3%
Total Effect	2,287.3	11%	$177,959,874	14%	$675,621,028	52%

As shown in the above table, agriculture, food, and food processing supports 2,287.3 jobs, or 11% of the entire workforce in the county. These industries provide a total economic contribution of approximately $676 million, roughly 52% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 19 agriculture, food, and food processing sectors is approximately $178 million, or 14% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 14% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

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1 Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

2 Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

3 Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

4 GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

5 Output = Intermediate Inputs + Value Added

In the top ten by employment, Meat processed from carcasses is the top employer in the agriculture industry with 273.5 employees. This table also shows the amount of jobs that are created by the agriculture industry in Crawford County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Meat processed from carcasses	273.5	$124,344,404
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	271.6	$39,286,679
All other crop farming	184.2	$13,045,390
Wholesale trade	167.6	$32,516,167
Grain farming	161.0	$31,462,275
Dairy cattle and milk production	145.8	$15,151,267
Dog and cat food manufacturing	128.2	$160,307,420
Other animal food manufacturing	87.9	$130,727,478
Management of companies and enterprises	62.2	$10,939,549
Support activities for agriculture and forestry	59.0	$3,679,480

The Dog and cat food manufacturing industry directly contributes approximately $160 million to Crawford County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Dog and cat food manufacturing	128.2	$160,307,420
Other animal food manufacturing	87.9	$130,727,478
Meat processed from carcasses	273.5	$124,344,404
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	271.6	$39,286,679
Wholesale trade	167.6	$32,516,167
Grain farming	161.0	$31,462,275
Oilseed farming	20.2	$24,376,212
Dairy cattle and milk production	145.8	$15,151,267
All other crop farming	184.2	$13,045,390
Management of companies and enterprises	62.2	$10,939,549

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Crawford County's economy.

Sector Description:	Employment	Output
Oilseed farming	20.2	$24,376,212
Grain farming	161.0	$31,462,275
Vegetable and melon farming	0.8	$81,130
Tree nut farming	0.4	$89,641
Greenhouse, nursery, and floriculture production	8.8	$871,165
All other crop farming	184.2	$13,045,390
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	271.6	$39,286,679
Dairy cattle and milk production	145.8	$15,151,267
Poultry and egg production	0.8	$209,731
Animal production, except cattle and poultry and eggs	7.5	$422,171
Commercial logging	1.5	$88,971
Dog and cat food manufacturing	128.2	$160,307,420
Other animal food manufacturing	87.9	$130,727,478
Meat processed from carcasses	273.5	$124,344,404
Bread and bakery product, except frozen, manufacturing	27.3	$2,912,164
Frozen cakes and other pastries manufacturing	1.6	$223,206
All other industrial machinery manufacturing	37.7	$9,073,616
Veterinary services	30.6	$2,254,678
Landscape and horticultural services	37.3	$2,237,867
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All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.